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THE FARMERS' CABINET,

DEVOTED TO AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

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To the Editor of the Farmers' Cabinet.

On Population and Cultivation.

The progress of agricultural science during the last quarter of a century, has occasioned many estimates of the amount of population a given quantity of land may be made capable of supporting.

With this question is intimately connected that of the area or number of square miles of cultivable soil a country may possess.

Thus, an approximation may be made to the prospective population, production, power, and wealth of any country. The tendency of the human mind to dive into futurity, may be satiated by a fair calculation The seats of Empire in after ages, may be indicated, more extensive than those of Alexander, Augustus or Tamerlane. Facilities of communication may be so extended, that a continent can be advantageously united in one vast Republic.

Already have the predictions of European statesmen, that our Federal Republic would fall in pieces by reason of its extent, and, the inconvenience of communication, been falsified by the Steam-Boat and Locomotive Engine.

The dream of the Poet—

"Westward the march of Empire takes its way,"

is realized.

Maclaren, a British writer of authority, has recorded the opinion, that this Continent, though less than half the size of the old, contains an equal quantity of useful soil, and a much more than equal quantity of productive power. He estimates that in America there are upwards of four millions of square miles of land, each capable of supporting two hundred persons, and nearly six millions of square miles, each capable of supporting four hundred and ninety persons.

The above estimate of the capability of America, to support a dense population, would give us ten millions of square miles of fertile soil, averaging three hundred and seventy-four persons to the square mile, and an aggregate of three thousand seven hundred and forty millions of inhabitants. The existing population of America is estimated at thirty-seven millions, which, if we adopt these data, would give three and seven-tenths inhabitants to each square mile of productive soil.

The most improved and best cultivated portions of the earth, as Great Britain, Holland, and Belgium, average about two hundred inhabitants to the square mile of their whole area. Pennsylvania contains about thirty, and her best cultivated agricultural counties, as Montgomery, about one hundred.

In Great Britain only sixty-four thousand square miles, or one half the entire surface, has yet been brought under cultivation,—so that her present population is nearly four hundred inhabitants to every square mile of cultivated soil. Her political economists estimate that the land now in cultivation could be made to produce sufficient bread, vegetable, and meat, for seventy millions of inhabitants, or nearly three times the existing number.

The elaborate report of the Secretary of the Treasury of the United States, of Dec. 5th, 1837, exhibits a view of the production, and consumption of wheat flour and meal, of grea interest to the Farmer. He estimates our population at fifteen millions, and the consumption of each individual to average a pound of flour or meal per day. "At the price of 3 cents per lb. for wheat flour and only 1½ cents per pound for meal from the cheaper varieties of grain, which is not far from the average of 1834 and '35, the cost of bread alone (if only one half the population used wheat

flour, and the other, materials less costly) would be about one hundred and twenty-four millions of dollars." This is exclusive of the "vast quantity of grain which is distilled, or employed in the arts, or consumed by domestic animals."

But at the increased cost of last year, estimated in the report at 80 per cent., the value of bread stuffs alone, consumed by our own population, would be about two hundred and twenty-four millions of dollars. The data furnished by the Secretary of the Treasury, while they show the enormous domestic consumption of bread stuffs, exhibit at the same time the comparative insignificance of the foreign markets, the exports to all of which during the most productive years have been but about fourteen millions of dollars.

Let the Agriculturist remember, 1st. That the increased consumption of grain has for several years more than equalled the augmented production. 2ndly. The abstraction of hands from rural labor for manufacturing, and labor upon public improvements. 3dly. The shortness of the last crop, as compared with average seasons, in several important sections. 4thly. The fact that improvements in husbandry are necessarily adopted very gradually. These may be considered reasons sufficient to account not only for the present high price of produce, but a fair calculation may be predicated thereon, that there must be at least two consecutively productive seasons before prices can be reduced to a low standard.

This should operate as a stimulus to every man connected with the cultivation of the soil, by judicious experiments with the various descriptions of manures, and other methods of cultivation, to extract from the earth the full amount it is capable of producing. For even in this "Pennsylvania of ours," though preeminently a farming state, scientific agriculture has not progressed in a comparative ratio, to its importance.

But another duty would remain, namely; to communicate to others the information gained by judgment and skill. To effect this the Periodical Agricultural press of our country affords an excellent medium. The establishment of such papers indeed, constitute an important era in Agricultural history. For who can estimate the vast amount of every species of improvement in cultivation, the results of individual exertion for ages, that has been lost, for the want of convenient methods of communication.

Your Friend,
Morris Longstreth.

Valley Green, 1st mo. 1st, 1838.

Forget not that in all your plans and operations there are two worlds.

For the Farmers' Cabinet.

Horned Cattle.—No. 2.

Early maturity is a valuable property in cattle, and this depends greatly, observes Mr. Aiton, of Scotland, on the way in which they are fed. The cows in the dairy districts of Scotland, when meagerly fed, never had calves till they were three, and frequently not till they were four years old; but since they have been better fed they always have a calf at two years, and some of them even younger.

Aptitude to fatten is a valuable quality in cattle. It is accompanied, says Mr. Bakewell, with smallness of bone, and the celebrated John Hunter remarks, that small bones are generally indicative of corpulency. Hence the importance of avoiding coarseness in cattle from which we wish to breed.

The short horns possess fattening qualities in an eminent degree, and in addition to their smallness of bone compared with the size of their carcass, the docility of temper, for which they are remarkable, contributes to their laying on flesh and fat rapidly. It is well observed by English writers that good tempered animals feed more freely than ill-tempered, vicious ones.

"Formerly," says Mr. Aiton "very little regard was paid by farmers to the breeding of cattle. The nature of the bull they thought a matter of no importance! When large bulls are put to cows of much inferior size, and ill-fed, the result is a race of large-boned, ill-shaped animals, generally inferior to both parents.

The male parent amongst quadrupeds has greater influence than the mother in the size and shape, as well as of the character of the progeny.

Dr. Cline remarks, "that crossing has only succeeded in an eminent degree, in those instances in which the females were larger, than in the usual proportion of females to males."

In improving stock be careful to select and couple together males and females as nearly perfect in shape and quality as they can be procured, without much regard to whether they are related or not, but always take care not to couple a male and female, both of which have the same defect.

"The most pure and perfect race of animals may be debased by improper mixture, or injured by improper treatment. Indiscriminate matches in breeding, and inattentive management in rearing, are alike capable of producing a worthless progeny."*

A careful cross of the Durham bull, with our best native stock, provided they are of good size and form, and not stinted or abused, produce cattle of exceedingly fine qualities,

* Dr. Coventry on Live Stock.

whether for fattening or milk; and in beauty, little inferior to the full blooded short horns.

They are also I think a more robust animal than the native English, and are probably better adapted to our climate. But let it always be borne in mind by those who attempt to raise fine stock, that without good feeding and kind treatment, no race of animals can be prevented from degenerating.

A Penn Township Farmer.

The Veterinarian.—No. 2.

STONE OR URINARY CALCULUS.

The urine of all animals appears to be an excretion, consisting of a large portion of water, and containing such noxious, and effete matter, as would interfere with the healthy performance of the vital functions, if they were not eliminated from the blood. Nearly all the fluid and soluble substances, taken into the stomach, are conveyed to the blood, along with the more nutritious parts of the food. The internal absorbents are, also, constantly taking up the effete, and useless molecules, which it is their office to remove from every part of the animal organs, and pour them into the common receptacle—the blood. Thus, a great quantity of adventitious and incongruous matter, is constantly combined with that all essential and vitalizing fluid.—An outlet for the excess of aqueous fluid becomes indispensable, to prevent an injurious accumulation in the blood vessels. A secerning organ, capable of separating the noxious material from the blood, is no less necessary, to preserve it in a healthy condition. Both the grand purposes are fulfilled, in an eminent degree, by the kidneys. To enable them the better to perform their office, the emulgent arteries, which supply them with blood, are unusually large in proportion to the size of the organs.

From these remarks the reader will at once perceive, that the kidneys serve the purpose of a *sluice-gate* or *safety valve*, to the blood vessels, maintaining an equilibrium in the quantity of blood. But they do more, they exercise a selective, or discriminating office, so as to preserve the blood pure and homogeneous.

The office of the kidneys, being to separate extraneous matter from the blood, it follows, that the qualities of the urine will vary with the qualities of the food, and of the products furnished by the digestive and assimilating organs.

When the urine is separated from the blood, by the kidney, it is received into the funnel shaped cavity, or *pelvis* of that organ, from whence it is conveyed, by a small fleshy tube, the *ureter*, to its proper receptacle, the *bladder*, where it continues to accumulate until necessity or convenience requires its expulsion through the *urethra.*

A urinary calculus, or stone, is a portion of sedimentary matter, deposited from the urine during the passage from the kidneys, and concreted into a solid form. Calculi may, therefore, form in any of the passages named, or, at least, in any of them which serve as receptacles; such as the pelvis of the kidney, and the bladder. They may also be found lodged in either the ureter or urethra. I shall, therefore, consider stone, as existing—1st, in the kidney.—2d, in the ureter.—3d, in the bladder—and 4th, in the urethra. I must, however, caution the reader, that in all these conditions, the disease is the same—the manifestations only differ, according to the situation and functions of the affected organ.

Perhaps the most healthy urine contains a portion of the matter of stone—but, so long as it continues small in quantity, and the solvent power of the fluid remains sufficient to hold it in solution, no harm can result.—Whenever the solvent power becomes ditminished, or the sabulous matter superabundant, a sediment will be formed, either in the state of fine *sand*, or, concreted into *stone*. In the former state, it may still pass off, with the urine, without injury. When the urine possesses a tendency to form stone, that process is greatly facilitated by the presence of any foreign, solid substance, in the urinary passages. Thus, a globula of mucous, or a coagulum of blood, would form the central nucleus of a stone, when a calculus would not have been formed without such a nucleus.

1st. Renal Calculus, or Stone in the Kidney.

Perhaps there are no symptoms which sufficiently indicate the existence of stone in the kidney—especially in brute animals.—Sometimes it exists without the animal being observed to be unwell. A case related by Youatt, was mistaken for *red water*, or *inflammation of the kidney*, which was truly the case—the stone having produced inflammation in that organ. "Great pain was always expressed when the urine was voided; at other times there appeared to be colicy spasms: there was excessive tenderness on the loins—and there was some heat." The animal was *killed to save the carcass*, when the kidney was found "enlarged to nearly twice its natural size, and much inflamed.—Its cavity was filled with a yellow, muco-perulent fluid, in which were a great many calculi; some were scarcely larger than sand, but three were the size of a kidney-bean."* The inflammation had spread to the neighboring parts. The reporter supposed this to be the only case recorded.

A somewhat similar case occurred within my knowledge. A friend of mine killed a cow for family beef a few years since. The ani-

* British Cattle, page 317.

mal had not been observed to be previously unwell, yet, on examination, one kidney was very much enlarged, and contained about *seventy* calculi. One of the number, now before me, is of an irregular form—measures an inch and a half in its longest diameter, and more than four inches in circumference, and weighs nearly an ounce. The others were smaller, varying from a small pea, to that of a large bean. Inexplicable as it may appear, the forms and appearance of the calculi justify the belief, that they once formed a single mass, and that it was broken to pieces, during the life of the animal, by some cause *inherent in itself.*

The irritation of a stone will often produce inflammation of the kidneys, with severe pain, and high febrile excitement. Whether the cause is ascertained or not, their symptoms should be combatted with copious, perhaps repeated bleeding, and a free use of purging salts. The case only admits of palliative treatment.

For the Farmers' Cabinet.

Remarks upon Agricultural Buildings. No. 3.

BARN AND STABLING.

I think there is much room for improvement in buildings for these purposes so far as they have been presented to my observation, and I have thought the following remarks, if not correct in every part, may be the means of exciting enquiry upon the subject, so as to perfect them, eventually, in the greatest possible degree.

The accompanying description will probably be sufficient to explain the subject. Fig. 31 is a *horizontal projection or ground plan* of the basement story, which should be large enough to contain all the horses, and animals usually denominated horned cattle, on a farm. *This* is supposed to be one hundred and twenty feet long and to contain sixty head; it is also supposed to be forty feet wide, with an entry through the middle the whole length, and a range of stables on each side of the entry, the whole length so constructed that the animals stand in them with their heads towards the entry. The entry receives hay from the bays above through vertical flues which extend from the joists above the entry to the roof. Stairs extend from the entry to the floor or floors above. There is a door at each end of the entry, and a glass window above to admit light when the doors are closed.—There is also a glass window at each end of both stables to admit light to the stables, and also air when necessary. All the windows about the stables and barn should be guarded by screens or bars. The doors of the stables are at the opposite side from the entry, one door serving for two animals to pass in and out. The floors of the stables, and that of the entry, together with the surface of the ground around the building, so far as animals are in the habit of frequently walking upon it during the winter season, should be paved with stone, and the interstices filled with lime and sand mortar, and made as smooth as possible. The entry perfectly level; the stables to descend from the entry at the rate of one inch, in every ten feet, and descend from one end to the other at the same rate, so that all the fluid substances which are dropped upon the stable floors shall run to the lower ends, and from thence in suitable channels into a cistern made water tight at the bottom and side. The contents that run from the stables into the cistern is to be pumped up from time to time into a hogshead placed upon a sled or axle with low wheels, so that the same may be taken to grass land and discharged upon it as evenly as possible. The surface of the pavement around the building should also descend in every direction from it at the same rate of one inch in every ten feet. The stables should be cleaned each day when the animals are turned out to drink, morning and evening, and the contents thrown directly from the stables into muck wagons, a wagon for each range of stables, and hauled direct to grass lands and deposited in small heaps upon it which are to be spread evenly upon the land as soon as vegetation starts in the spring, or it may be deposited in a house or shed under roof, and hauled and spread upon grass lands in the spring, before the volatile parts are in any considerable degree lost by fermentation. By placing a horizontal railway for each wheel to run upon, parallel with the building, so as to bring the wagon near each stable door, the wagon may be moved along upon the railroad by one man, even when loaded to the extent usually done for an ordinary team to haul (or draw it) upon a common road.

One animal is let out of the stable to drink at a time, and may be allowed to walk upon a platform, attached to a lever, the movable end of which is over a well of water, and under the axle of a vertical wheel, and connected with a cord, rope, or chain, which coils upon the axle and is attached to it. Another rope, cord or chain, coils upon the wheel of this axle, by the uncoiling of that from the axle aforesaid, produced by the descent of the lever with the animal upon it.

A bucket with a valve in the bottom, opening upwards, is attached to the lower end of the cord, rope, or chain, upon the wheel aforesaid, which is filled through the valve, and when raised by the curling of the rope upon the wheel as aforesaid to a sufficient height, a hook, attached to a trough or reservoir seizes one edge of the bucket, and prevents it from being raised too high, while the opposite side

and bottom are raised sufficiently high to cause the water to run into the reservoir.—When the animal has drank and moves off the platform, it rises together with the lever; and the bucket descending into the well by its own weight uncoils the rope from the wheel and causes the other rope to coil upon the axle; the moveable end of the lever and platform has now risen to its highest position, ready for another animal to move upon the platform and raise a supply of water to drink, in the same manner as the one had done previously, (already described) and so on to any extent required. Each apartment may be cleaned while the animal which had immediately before occupied it has gone to drink. By giving the animals a portion of superior food immediately after they have all returned to the stables from drinking, they will soon get accustomed to pass from the stables, draw water, drink and return to the stable without any personal attention whatever. By placing the well at the opposite end of the building from the cistern, in a line with the middle of the entrance, forming the lever with an angle over the well, to move on a fulcrum, at the nearest corners of the building,—one lever will answer for the animals in both ranges of stables.

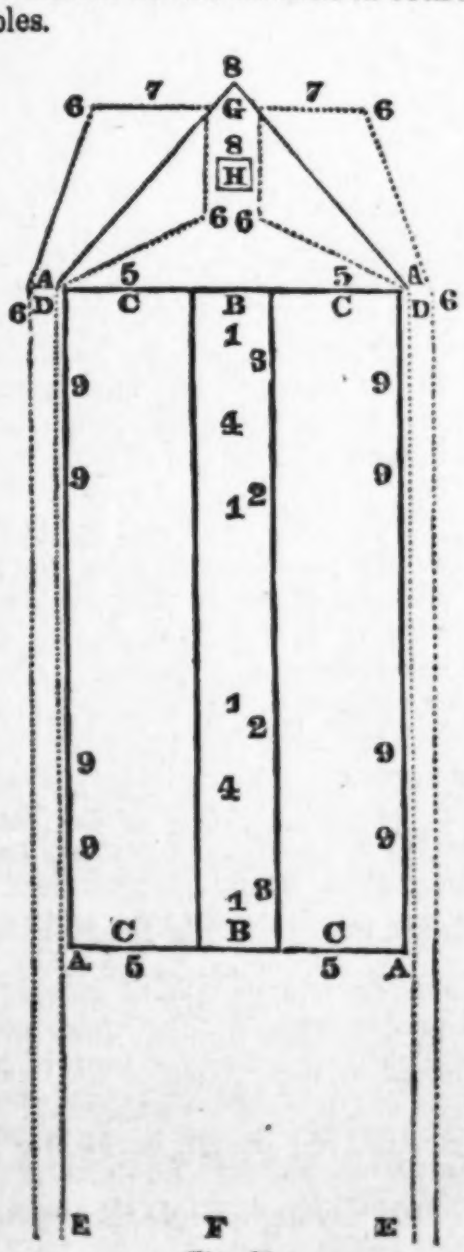

Fig. 31.

Explanation of Fig. 31.

A A A A are the four corners of the basement story of a barn forty by one hundred and twenty feet. B B the entry eight feet wide and eight feet high with a double door at each end to close an opening six and a half feet square. A range of window glass is placed over each door to admit light when the doors are closed. Hay is received into the entry at 1 1 1 1 from the vertical flues above, and stairs terminate at 2 2 or 3 3 from the floors above, the centre of which are over 4 4. 9 9 9 9 9 9 9 9 are under the sides of the barn floors. C C C C are two ranges of stables with doors in the sides between A A A A, equal in number to half the number of animals to be accommodated in the stables.—Each range of stables has two glass windows over 5 5 5 5 to admit light and air when required. The dotted lines D E D E show the position of the rail-ways for the muck-wagons to run on. E E shows the position of the two houses or sheds for the wagons to be in when not in use. They may also be used to contain the contents removed from stables during the time the ground may be unfit to haul it to the field or meadow. F shows the position of the cistern. G the well, and A G A the lever with the fulcrum at A A. The dotted lines around between 6 6 6 6 6 6 show the edges of the platforms, and H the reservoir between them. The axle is placed between 7 7 and the wheel is between 8 8. The stables should be rather lower than the entry, and higher than the surface oppcsite out side of the building.

By adopting the foregoing plan and having the animals well supplied with dry litter for bedding at night, (which can be placed under the manger during the day) and admitting an additional supply of air, by opening the doors and windows when that from the flues and stairways is insufficient, a purity and equality in the temperature may be obtained in the atmosphere of the stables, far superior to plans in general use. P.

Dec. 12th, 1837.

For the Farmers' Cabinet.

The Ring Bone.

It not unfrequently happens that that noble animal, the horse, is rendered entirely useless by affliction with the above disease, from a want on the part of the owner of a proper knowledge of the treatment necessary for its removal. The following is an effectual remedy, and has been known to cure many cases of long standing. If used in the first stages of the disease no vestiges of it whatever will be left. It has never, to my knowledge, before been in print, but believing that whatever tends to the interest of man, or the me-

lioration of the condition of man or beast, should be publicly known, I send you the following:

Directions.—Bake a cake of chopped rye about an inch and a half thick, and of length and breadth sufficient to cover the ring bone. Moisten the ring bone completely with aqua-fortis of the best quality, (this may be done with a feather,) and then rub it over with hog's lard. Take the cake as hot as can be handled, split it in two, and pour a little of the aqua-fortis on the inner side of one of the halves, and tie it on while hot, with the inner side on the lump. Let this remain on for about twelve hours, and when taken off rub it over again with hog's lard. It will be necessary while the application is on the foot, that the horse be tied up to prevent him from biting it off. The first application to be made on the first day of last quarter of the moon, and repeated every other day till three applications are made. This seldom fails of effecting a cure, but if necessary repeat it again at the succeeding last quarter.

A German.

Chester County, January 9th, 1838.

For the Farmers' Cabinet.

Remarks on the influence of age upon Grafts and Cuttings and other Vegetables which are cultivated otherwise than from seed.—Depredators, &c.

The correct system of advancing useful knowledge, not only in relation to agriculture, but upon all subjects, is to proceed from the *known* to the *unknown*, and as the *Cabinet* is intended to be a vehicle to convey information from one section of country to another, which will either directly or indirectly augment the number of *established facts* and diminish the number of *conjectures* upon the subject of agriculture in all of its departments, a *subject* wherein the whole human race is interested; I shall make a few remarks relating to the natural decay of vegetables, and upon the subject of the rotation of crops, showing the *supposed* influence which one crop has upon the growth of the immediate succeeding one, and also the influence upon the depredators which may have come into existence during that period.

If the theory here advanced be incorrect, no one will be more pleased than myself to see the error pointed out; and if correct, I should be equally pleased to see the subject extended and illustrated by a statement of experiments from persons better qualified for the task. All are *interested* in each advancing step toward making *agriculture* a complete *science*.

1st. Vegetables are limited in the duration of life, and a graft or slip partakes of the natural decay arising from age in the parent tree; the same remark as regards depreciation will apply to other vegetables which are cultivated both from the seed and otherwise, such as the potato, onion, &c.; therefore, grafts, slips, (or cuttings,) potatoes, onions, and other vegetables which are thus cultivated, should be extended from the best kinds which have passed through but a small portion of the supposed natural duration of life.

2nd. A leading object in all agricultural and horticultural societies should be to cultivate annually from seed of the best quality (the first matured large seeds) all the variety of vegetable plants beneficial to man, and in a quantity that will reasonably ensure a new kind sufficiently valuable to be extended afterwards at pleasure. A memorandum should be faithfully kept showing the length of time which may have passed since each variety had been continued from the seed. In this way no one would be deceived, and the improved kind would probably command a price ten times greater than the expense of producing it.

3rd. The roots of a crop while undergoing decomposition in the earth furnishes food for the succeeding crop, and a repetition of the same kind of crop for several succeeding years serves to increase certain kinds of depredators, such as flies, worms, &c., but when vegetables of a different character, alternate with each other, the depredators themselves die for want of support, and furnish food for vegetables; therefore plants of a similar character should never follow each other without a sufficient interval to cause the death of such depredators as feed upon them, unless these depredators can be destroyed by other means.

The other means which are naturally presented to the mind, when investigating the subject, are temperature and such substances as will destroy animal life without injury to vegetables; thus we have a variety of means to increase the fertility of soil by such vegetables as draw nourishment from the atmosphere, the roots of which afterwards become decomposed in the earth, and furnish food for the succeeding crop, such as the red clover, beets, turneps, parsneps, carrots, and other plants with tap-roots and broad leaves; also, the onion, potato, and artichoke, the cabbage, pumpkin, mellon, squash, bean, pea, &c., may also, to a considerable extent, combine these properties when the fruit, leaf, stalk, and root are all returned to the earth decomposed.

We also have a variety of means to destroy depredators and convert them into food for vegetables, such as the frost of winter upon the embryo of the cut-worm, as exemplified by the benefit arising from autumn and winter ploughing. The destruction of the peach-worm by warm water and a variety of other cases.

In substances of the ordinary temperature, either of the plant or depredator, and which do not injure vegetables, but destroy these pests, we have lime in a caustic state (unslacked lime,) ley of wood ashes, (potash,) tobacco in the leaf or powder, (snuff,) or combined with water or other substance, and a variety of other articles of a similar character.

For the above, and many other reasons, I draw the following conclusions.

1st. Land for Indian corn should be ploughed in the autumn or winter preceding the planting.

2nd. A crop of Indian corn, barley, oats, wheat, or other plants with a fibrous root should not be cultivated two seasons in succession upon the same land without an intervening crop of a different character. I shall probably in another communication make some farther remarks upon this subject.

P.

Chester County, Pa. 30th Dec., 1837.

For the Farmers' Cabinet.

Thatching.

In what part of Pennsylvania, or elsewhere in the United States, is thatching most practised and best understood? What material is most in use and most valuable for that purpose? For how many years does ordinary thatching continue to cast rain? I would ask for a comparison between that covering and shingles, various kinds, say the cheapest, at first cost, in point of durability and economy, but am aware that that depends on the comparative absence or abundance of the two materials, but would be glad to see such an estimate as the case would admit of.

Are not cottages in Europe, in which wood fires are used, frequently thatched? The idea with us is that it would be dangerous to attempt to associate a wood fire and a thatched roof—but I have heard that *the town of New Harmony is a thatched town!* Again, can the process of thatching be so *described* as to be understood by a printed description—or by a diagram? What is the charge per square yard or otherwise, for thatching, the material being on the spot? The answer to this will enable one to contrast the expense of nailing on shingles with that of thatching, the materials being on the spot.

What is the nature of the *frame-work* necessary for thatching?

Frame-Work.—Could a man be had in Pennsylvania to come into Maryland to thatch some tobacco and out houses, and what would he charge per square yard FOR INSTANCE?

TOBACCO—*as connected with the preceding inquiries.*—Some years since the planters of Maryland generally fired their tobacco to make it *bright*, and to cure more in a given space. The practice has been nearly abandoned, for three reasons: Fired tobacco has ceased to command an advanced price—the smoky flavor injured the sale—next scarcity of wood to fire with—and thirdly, the danger of loss of houses and tobacco by firing. Still brightness of color is a *desideratum*. To consult profit and economy, says an esteemed correspondent, "Houses should be built to cure quick and without injury, and for this reason they should be built *long* and *narrow* and *high*. If you build 24 feet wide, the old way, with sheds all round ten feet wide, you have such a volume of green tobacco, or such a thick mass for the air to penetrate, that ten to one but each year you lose from $50 to $100 by "*house-burned tobacco*," unless you have an uncommonly dry fall, as this has been. I have lost in the last ten years more tobacco, by having it "*house-burnt*," than would build double my number of tobacco houses. My plan is to house, or hang all round the edges of the sheds, and when cured, stow away in the roofs. Were I to build now, I would build not more than 18, or at most 20, feet wide, and 18 or 20 feet high. I need not tell you, that there is evaporated 14 pounds of water from every 15 pounds of *green* tobacco. Therefore, a common tobacco house 40 by 24 cures 3,000 pounds of stripped tobacco, and, say, 3,000 pounds of stalks; making 6,000 pounds when cured; which must make something not far from *eighty thousand pounds of water* to be carried off by evaporation from a common sized barn. It is self-evident that to get such an evaporation off speedily, the house should have every chance to let it escape without having recourse to any expedient for that purpose that will let in rain, water, or external moisture. "*House-burnt*" tobacco is caused by the humid evaporation of the plant settling on its leaves. Where it can't escape fast enough from the house, the evaporation settles on its leaves; they become wet, turn black, rot, and crumble into dust.

The question is whether thatching would not make the roof so *tight* as not to allow this evaporating moisture to escape as rapidly as it would do from a house covered with shingles?

I have understood that Mr. TUCKER, on West River, one of the neatest and most judicious and successful cultivators of land in Maryland, cures a part of his tobacco in houses thatched by himself, probably with rye straw. But there is on the estate of Doctor James Tongue a grass of most luxuriant growth, reaching to more than six feet in height, with slender, pliant, and tough stem, which appears to be most admirably adapted to the purpose of thatching. It grows on

marsh land, on the head of tide water, near Tracey's landing.

After all, the great object would seem to be to *admit air* and *exclude moisture*. Would not numerous venetian windows, with sliding shutters, to be closed on the approach of driving rains, answer a good purpose?

If any apology were necessary for seeking the information here solicited for one of my sons, who has "turned planter," on a small scale, on the subject of thatching, believed to be best understood in Pennsylvania, the writer might alledge that twenty years ago, "solitary and alone," without subscriber or correspondent, he *started* the old American Farmer, which was followed by the establishment of agricultural societies in almost all the States, and by much more able journals, especially the Farmers' Register, the ablest that has appeared in any country. Who would now attempt to calculate the addition that has been made to our stock of agricultural knowledge and wealth by the publications which are now diffusing their light all over the country?

Should any of your readers favor me with any information on the subject of my inquiries, with their permission, it shall be communicated for the Cabinet.

J. S. Skinner,
Post Office, Baltimore.

January 8th, 1838.

Experiments in the Culture of Silk.

The following letter from Mr. E. Newcomb, of Polsley's Mills, (Va.) to the editor of the Silk Culturist, details the manner and results of some experiments in silk making, which will be found useful to new beginners:

Dear Sir—Having been an attentive reader of the Silk Culturist, as well as many other periodicals on the subject of culture and manufacture of silk, and feeling a deep interest in their success in the United States, and having read of various experiments in feeding worms, and of various fixtures for the worms to wind their cocoons on, I have been induced to try some experiments myself. Although a beginner in the business, it may possibly be some satisfaction to some of your readers to hear the results of my experiments. About the 20th of May last, I hatched about 200 silk worms and fed them about five weeks, when they commenced spinning and made good cocoons.

On the 4th, 5th, and 6th of June, the second crop hatched and fed 30 days, and were healthy, and made 4,000 good cocoons. On the 13th, 14th, 15th, and 16th of June, the third crop hatched, and fed well, and were healthy until about the 26th day after hatching, at which time many of them were attacked with a disease called the yellows, which carried off half of them; the remainder spun their cocoons, 3,000 in number, but they were small and light. The above worms were from last year's eggs. The fourth crop hatched on the 29th July, and fed about 26 days, and were very healthy and made large cocoons. The fifth crop hatched on the 7th, 9th, 11th, and 13th of August, and spun in 26 days after hatching, and were healthy and made good large cocoons. Of the fourth and fifth crops, which made 42 knots of silk on Dales' reel, four threads of which made good sewing silk. The fourth and fifth crops were from eggs of this year's produce.

It appears that eggs will not hatch *regularly* the *same season* which they are *laid*. Having read various opinions on that subject, I thought I would try some experiments, and accordingly obtained a few eggs about the 12th of August, in 1836, and exposed them to the common atmosphere, and not one of them hatched that season.

Although some of the same stock from which I got them did hatch, (to the number of about 200,) about six weeks or two months before. About the 20th of May, I exposed the few eggs last mentioned, together with about 4,000 of the same stock, and in about a week after, they all hatched out, that is, they hatched on the 4th, 5th, and 6th June.

I left about 6 or 8,000 eggs, deposited this season, on the hurdles, in hopes that they would hatch, as they were sent for the *two crop* or *white worm*, and 300 of them hatched. About the same time I examined those that were in the cellar, and found that 2 or 300 of them had hatched also. I then exposed 6 or 7,000 of those in the cellar to the common atmosphere, but not another worm of them hatched this season.

The plan I have adopted for feeding frames is similar to that of Mr. Whitmarsh, of Northampton, Mass., with this difference, that instead of having all the hurdles of one size, I have them arranged in the following manner: My hurdle frame is about three feet wide, divided as follows: the first hurdle, for the worms when first hatched, is a thin board thirteen inches wide; the second hurdle is a frame covered with millinet, which is two feet wide, with a paper slide underneath. The third hurdle is a frame covered with net work, four feet wide; and the fourth hurdle is six feet in front covered with net work, and a slide underneath as above. This plan is designed for successive crops, and answers a good purpose, with one exception, which is, that when the worms are spinning, some of the worms are inclined to spin between the net work and paper slides, and by drawing the slides in order to clean off the litter, you will disturb the worms in their la-

bor, and those so disturbed are lost. But in order to obviate that difficulty, I dropped the slide one and a half inches lower, so that they could not reach from the net work to the paper slides below. I have tried Mr. Whitmarsh's plan for the worms to spin on, and I have substituted small lath for his net work, and the worms appear better pleased with the lath than the net work. I have tried the plan of seven-eighth inch holes in one and three-fourth inch plank. The holes answered a good purpose, but are two expensive unless made by a machine for that purpose.

I have invented a plan, which pleases me better than any I have seen, or read of. It is to take a thin plank, five-eighths of an inch thick, and seven or eight inches wide, with legs about one and a half inches long at the bottom edge of the plank, and form shelves by running grooves in each side of the plank, about seven-eighths of an inch apart, and take a thin board, from one-eighth to one-fourth of an inch thick, and slit off pieces wide enough to fill the grooves, and to project about seven-eighths of an inch, so as to form small shelves. This gives them just room to form their cocoons. The worms appear better pleased with this plan than any other I have tried; and no litter can fall from one worm to another, and of course the cocoons are kept entirely free from any litter whatever.

I have made a silk reel after Dales' plan, and have succeeded in reeling about three pounds of silk, and have manufactured about 500 skeins of sewing silk, a part of which is said to be as good as most of the imported. The above silk was manufactured on the common wheel, but I intend to get a small spinning machine, before I manufacture much more. I do not expect to make much silk next season, but the following year I am in hopes I shall be able to make from 40 to 50 lbs. of silk, if I have good luck with my trees and cuttings, as I have Italian and Chinese trees and cuttings sufficient to stock about three acres of land, which I have lately purchased for that purpose. I shall have about 3,000 Italian trees two years old for sale this fall, or next spring. I would sell them this fall if called for. I have about 160,000 silk worm eggs for sale also, both of which I will sell as reasonably as they can be had at any regular market.

Hogs and Manure.

Mr. Cooke:—If you think the following worthy, you may trouble your readers with its appearance in your paper.

I think that branch of the "farmer's work" which embraces the fattening of pork, and making manure therefrom, is not enough attended to by farmers in general. If properly managed, it will afford the greatest profit from the same expense and labor.

My plan is this:—Yard the hogs through the year. Give each hog to work upon ten loads of mud from the swamp. Give them potatoes, apples, and waste food from the house, enough to keep them in good thriving order *all the time*, till about September. Then attend them regularly, giving them all they will eat, perhaps some extra food, for about four months.

In this way, the expense will be about $20 or $25 per hog, for the whole time of growing and fattening.

Some men, thinking to avoid expense in keeping, permit their hogs to "run at large," or in a large pasture. This is a bad practice; the hogs "run away" so much of their flesh, that it requires nearly as much to keep them in a thriving state, as if they were yarded.—If it did not, the pasture would be much more profitable for other stock. More than this, the hogs will convert about four loads more of mud into good manure, which will more than twice pay the extra cost of yarding.

THE RESULT—COST.

Cost of growing and fattening each hog,	$25 00
Cost of hauling mud to the yard, 10 loads,	1 00
	$26 00

PROFIT.

There will be eleven loads of first rate manure, (the hog making one at the lowest calculation,) which if applied to the benefit of a corn crop, and the soil, will at least be worth $2.25 per load. This may seem a high estimate, but every experienced farmer must admit it.

Which will amount to	$24 75
Which sum deducted, leaves *cost*,	$1 25

The hog, if he has done well, will weigh four cwt., which, at present prices of pork, is worth ten cents per lb., $40 00

Who can make $1.25 nett him $40.00 in any other branch of agriculture.—*Am. Silk Grower.*

From the Maine Farmer.

Barn Yards ought not to be used as Cow Yards.

Mr. Holmes:—It is agreed among farmers, that manure is to farming, what money is to war. There is a very common practice among our farmers, and many of the best allow themselves in it, which is much to their disadvantage; that is, to yard their cattle through the summer in their barn yards.

According to my observation, it is a besetting agricultural sin in this State, and this county in particular. All experience has shown that folding land is not only the cheapest, but best mode of manuring our land. Pasturing is

partially doing it—and who has not experienced the difference between pasture land, and mowed land, when broken up? A first rate farmer said to me, a few days since, "I could not raise crops, if I did not alternate,—first pasture, then till, then mow."

A stock of twenty head of black cattle would manure, fit for any crop, the fourth of an acre in a half of a month. If you have a light fence, it might be shifted every half month, and you will have 3 acres manured for any crop. These acres added annually to your manured tillage land, would be felt in a few years, and make you, perhaps a thriving farmer when you might not have been before.

Make your calculation upon almost any tilled crop, and see what the profits will be.

If put to Ruta Baga, it will probably, with a little top dressing, produce you eighteen hundred bushels, and the land left in good order for a crop of wheat or other grain. If put to potatoes, it would probably produce nine hundred bushels; and that amount of roots would make your stock shine, if prudently given to them during the winter. I presume you need no long arguments to convince you of the loss of substituting a barn yard for folding yards, or as they are called, cow yards.

W.

Winthrop, Oct'r. 1837.

For the Farmers' Cabinet.

The following tables show the quantity of rain which has fallen in each year, for the last twenty-eight years; from 1810 to 1824, both inclusive, from the books of the late P. Legoux, at Spring Mill, nine miles N. W. of the city of Philadelphia; and for the last thirteen years from the guage kept at the Pennsylvania Hospital. The snow in all cases, was melted and measured in the guage. The average quantity fallen for twenty-eight years, is 36.99; and the average quantity for the last thirteen years, is 39.66 inches.

	Inches.
1810	32.656
1811	34.968
1812	39.300
1813	35.625
1814	43.135
1815	34.666
1816	27.947
1817	36.005
1818	30.177
1819	23.354
1820	39.609
1821	32.182
1822	29.864
1823	41.851
1824	38.740
1825	29.570
1826	35.140
1827	38.500
1828	37.970
1829	41.859
1830	45.070
1831	43.940
1832	39.870
1833	48.550
1834	34.240
1835	39.300
1836	42.660
1837	39.040

Statement of the quantity of Rain for the last thirteen years.

	1st mo. Inches.	2d mo. Inches	3d mo. Inches.	4th mo. Inches.	5th mo Inches.	6th mo. Inches.	7th mo Inches	8th mo. Inches.	9th mo. Inches	10th m. Inches.	11th m Inches.	12th m. Inches	Total Inches.
1825	.84	3.26	4.63	.83	1.72	3.59	2.06	3.70	2.61	1.25	1.36	3.72	29.57
1826	1.11	2.13	5.80	3.87	.19	4.65	3.68	2.75	2.00	5.83	1.85	1.28	35.14
1827	2.86	3.55	1.23	2.83	2.50	2.09	2.97	5.75	.79	5.91	4.76	3.26	38.50
1828	2.05	2.75	3.35	3.82	3.49	2.69	5.33	1.51	4.62	1 39	6.71	0.26	37.97
1829	5.37	3.75	2.87	4.99	2.68	3.44	4.35	4.61	2.01	2.30	3.97	1.51	41 85
1830	1.63	2.06	4.11	1.81	3.75	5.99	4.07	3.87	2.93	4.31	5.35	5.18	45.07
1831	6.02	2.44	3.17	5.20	1.07	3.56	4.17	5.39	5.33	4.51	1.88	1.20	43.94
1832	4.59	2.66	1.90	2.98	5.40	1.55	2.62	5.69	1.40	3.41	2.59	5.09	39.87
1833	3.97	1.24	2.22	0.70	5.88	5.28	4.15	3.39	3.82	10.05	2.18	5.67	48.55
1834	2.49	2.22	2.02	2.83	3.52	3.99	4.35	0.62	3.57	3.29	3.01	2.33	34.24
1835	2.75	1.81	3.83	4.33	1.99	6.27	6.55	2.05	2.63	1.22	3.19	2.68	39.30
1836	7.62	2.99	1.75	3.47	2.28	7.31	2.91	1.97	1.82	3.59	3.34	3.61	42.66
1837	2.50	3.58	3.76	2.83	4.86	2.83	5.89	4.06	2.28	0.66	3.23	2.56	39.04
	43 79	34.44	40.64	40.49	39.33	53.24	53.10	45.36	35.81	47.72	43.42	38.35	515.70
	*3.37	2.65	3.12	3.11	3.03	4.10	4.08	3·49	2.75	3.67	3.33	2.95	39.66

* The bottom line shows the average of each month for thirteen years.

39.66 inches, average per annum for thirteen years.

36.99 inches, average per annum for twenty-eight years.

Fig. 32.

Patent Elastic Cattle Tubes.

In consequence of negligence or accident, cattle or sheep are *choked or blown*, or the stomach is rendered incapable of discharging its contents; a remedy must be speedily applied, or the animal is lost. The usual remedy for this disorder, has been to stab the animal with a penknife, or other sharp instrument, which is both cruel and dangerous, and attended with fatal consequences in a majority of cases.

To relieve cattle thus affected, effectually, it is not only necessary to free the gullet of all matter which may settle in it, and the stomach from the gasses which accumulate there, but also, to destroy the action of the fermenting mixture, which is their generating cause; this can be effected by the application of this simple and useful instrument, in the following manner.

The mouth piece, which accompanies the tube, is placed between the jaws of the animal, and buckled on firmly, after which, the tube is introduced through the aperture into the gullet, when by a slight pressure, the offending matter (if a solid) is forced downwards, (if a gas) it is immediately discharged through the hollow of the tube.

The introduction of this instrument, may be effected by the help of an assistant, who should hold the horns of the animal while the operator is skilfully employed in introducing the tube, the assistant bringing the head and neck into such an attitude as to make the passage nearly straight, which will facilitate the operation, and render relief immediately.

These tubes are for sale by the manufacturers, Messrs. Fitnam & Murphy, No. 48½ North Sixth Street. They are made in a neat and substantial manner, price three dollars and fifty cents. Every farmer should possess one: and we would urge those who have not already furnished themselves with so valuable an instrument, to call on the manufacturers and examine for themselves.

An Essay on Indian Corn,

Delivered by Peter A. Browne, Esq., L. L D., before the Cabinet of Natural Science of Chester county, Pa.

Concluded from page 152.

VIII. Is the Indian corn capable of being improved by culture?

Thomas N. Baden, Esq. who resides near Nottingham, Prince George County, Maryland, has demonstrated that the Indian corn can be greatly improved, both in quality and quantity, by cultivation. I will first give you his own words.

Near Nottingham, Prince George's Co.
January 26, 1837.

Sir—I received yours of the 14th, making enquiry respecting the "Maryland corn," which you understood I had raised. I have the pleasure to say, that I have brought this corn to its high state of perfection, by carefully selecting the best seed in the field for a long course of years, having special reference to those stalks which produced the most ears.

When the corn was husked, I then made a re-selection, taking only that which appeared sound and fully ripe, having a regard to the deepest and best color, as well as the size of the cob. In the spring, before shelling the corn, I examined it again, and selected that which was the best in all respects. In shelling the corn, I omitted to take the irregular kernels at both the large and small ends. I have carefully followed this mode of selecting seed corn for *twenty-two or twenty-three* years, and still continue to do so. When I first commenced, it was with a common kind of corn, for there was none other in this part of the country. If any other person undertook the same experiment, I did not hear of it; I do not believe others ever exercised the patience to bring the experiment to the present state of perfection. At first, I was troubled to find stalks with even *two good ears* on them, perhaps one good ear and one small one, or one good ear and a "nubbin." It was several years before I could discover much benefit resulting from my efforts; however, at length the quality and quantity began to improve, and the improvement was then very rapid. At present, I do not pretend to lay up any seed without it comes from stalks which bear, 4, 5, or 6 ears. I have seen stalks bearing eight ears. One of my neighbors informed me that he had a single stalk with *ten perfect ears on it*, and that he intended to send the same to the museum at Baltimore. In addition to the number of ears, and of course the great increase in quantity unshelled, it may be mentioned that it yields much more than common corn when shelled. Some gentlemen, in whom I have full confidence, informed me they shelled a barrel (ten bushels of ears) of my kind of corn, which measured a little more than six bushels. The common kind of corn will measure about five bushels only. I believe I raise *double, or nearly* so, to what I could with *any other corn I have ever seen.* I generally plant the corn about the first of May, and place the hills five feet apart each way and have two stalks in a hill. I can supply you with all the seed you may need, and I suppose I have now in my corn house fifty, and perhaps more stalks, with the corn on them as it grew in the field, and none with less than *four*, and some *six or seven* ears on them. I will with pleasure send you some of the stalks, and also some seed corn, if I can get an opportunity.

Early last spring I let George Law, Esq., of Baltimore city, have some of this seed corn: he sent it to his friend in Illinois, with instructions how to manage it. A few weeks since, he informed me that the increase was *one hundred and twenty bushels on an acre;* that there was no corn in Illinois like it, and that it produced more fodder than any other kind. I have supplied many friends with seed corn, but some of them have planted it with other corn, and will, I fear, find it degenerate.

I have lately been inquired of if this corn is not *later* than other kinds? It is rather *earlier*; certainly *not* later. Corn planted in moist or wet soils, will not ripen so quick as that which is planted on a dry soil. In the former, there will be found more dampness in the cob, although the kernel may appear equally ripe in both. In the two last years, the wet seasons have injured much corn that was too early "lofted" or housed.

I believe I have answered most of your enquiries. I hope I have not exaggerated—I have no motive for doing so. I raise but little corn to sell, as tobacco is my principal crop. Should I fail to send you some seed this spring, I will next summer gather some stalks with the corn, fodder, and tassels, as they grow, and send to you, that you may judge yourself of the superiority of this over the common kind of corn. Yours, &c.

Thomas N. Baden.

In order to form a proper estimate of the exceeding utility of adopting the plan of Mr. Baden, let us take a case—for instance, the fine county of Chester in Pennsylvania, to which we had reference before when speaking of the quantity of Indian corn raised in the United States. If instead of thirty bushels to an acre, (which was stated to be the average crop, Chester county could produce one hundred and twenty bushels to the acre, the annual produce in this article alone, would be four-fold; and instead of exporting three hundred and twenty thousand bushels, the farmers of Chester county would send to market one million two hundred and twenty-eight thousand bushels annually!

And if Chester County, in point of soil and agriculturists, is a fair sample of our state, and in the other counties there could be a similar increase, there is scarcely a possibility of calculating the immense advantages that might thus be derived from the careful cultivation of this single plant!

But the calculation does not stop here: if Mr. Baden's *principles* be correct, they apply to all other grains as well as they do to Indian corn, which might by care and attention be made to double, treble, and quadruple their present crops! Is it not worth while to try the experiment upon other grains? And will not the intelligent farmers of our country follow up the experiment of Mr. Baden upon our favorite plant?*

*The rows of grain found upon the cob in the spike or ear of corn are always *even.* An anecdote is told of a negro slave belonging to Virginia, who, being at work shelling corn, inquired

IX. Its cultivation compared with other grains.

Mr. Taylor asserts that Indian corn produces more food for man, beast, and the earth, than any other farinaceous plant.

That Indian corn in a proper climate for it, produces more farinaceous matter to the acre than wheat, he proves as follows:

"The highest product of Indian Corn in the United States is one hundred bushels to the acre, whereas the highest product of wheat is sixty bushels per acre. Fifty bushels of corn to the acre is invariably produced by land well manured, and well cultivated; whereas half that crop of wheat is extremely rare, and in districts where the average crop of wheat is five bushels, that of Corn is fifteen bushels to the acre."

Mr. Taylor also contends that Indian Corn is the least impoverishing crop. The cornstalks infinitely exceed wheat straw in bulk, weight, and capacity for making food for the earth, and English farmers consider wheat straw as their most abundant resource for manure. But to the stalks of Corn must be added the blades, tops, shucks, and cobs, each of which will nearly balance the litter bestowed on the land by wheat. He further contends that the quality of the sustenance thus returned to the earth by Indian Corn is of a better quality than that of wheat, and that it incurs less risk of loss by evaporation.—Wheat straw he says he has known to lose two-thirds of its first weight. The shucks and cobs of corn lose nothing by evaporation. The rind preserves the stalks and the top from the operation of the atmosphere, which upon the blades has only the effect it has upon grass, turning them into hay.

X. The different uses to which the Indian Corn can be applied, also recommend its cultivation to the agriculturist.

1. The *stalk* contains a large portion of saccharine matter. Attempts have been made in France to extract this matter for the purpose of making sugar; but the modes hitherto used have not been crowned with success, owing to the expensiveness of the process.

According to Humboldt this manufacture is carried on with complete success in Mexico.

The *stalk*, *top*, and *leaves* are used for fodder for cattle, when dried, and sometimes the whole plant is used for the same purpose in a green state. When this is intended it is sowed broadcast and cut before it goes to seed.*

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of his master, if there were no ears of corn that had odd rows. His master gave for answer, that if he would bring him an ear of corn with an odd row he would give him his freedom. The negro made no remark, but a year or two afterwards he reminded his master of his promise, and produced an ear that had nine rows. The Virginia gentleman regarded the ear with astonishment—counted it several times before he could believe the testimony of his own eyes; at length he demanded of the negro how it had came to pass. If I tell massa, said the fellow, he will not give me my freedom. Upon being assured that he should have his freedom at all events, he confessed that he had, in the earliest state of its growth, unclosed the husk and cut out a row, after which he closed it up again, and it presented when ripe, the unnatural appearance of a spike of corn with an odd row. He had, it appeared by his own confession, been trying this experiment upon many plants before he could succeed. His master gave him his freedom, but kept the odd ear of corn a great many years to show to his acquaintances, to whom he was fond of relating the anecdote.

*A story is told in Virginia, but I will not vouch for its accuracy. It is a common practice on the plantations to give the slave a little spotof ground, which he is allowed to cultivate for his own profit. On one of these patches an old negro had planted Indian corn for what is called "roasting ears," and as he tended it with great care it was in the most flourishing condition, and promised an abundant harvest. It was the pride of his heart, the object of his thoughts by day and his dreams by night. He had already in his own mind calculated the profits it would yield, and had determined upon some of the fine things he would purchase with the proceeds. It so happened, however, that just about the time that the female flowers were ready to receive the fructifying powers of the male ones, the owner of the little cornfield had an unfortunate quarrel with an old crone whose lodge was in the neighborhood of his favorite little spot. His antagonist was noted for having the free use of her tongue, and on this occasion was more eloquent than she was wont. After venting upon the man all the maledictions she could recollect or invent, proceeded to curse his favorite patch of corn, and in the most solemn manner declared, that it should not yield him a single ripe ear. Strange to tell, when the time of harvest arrived, the poor slave found that the malicious prophecy was true to the letter, he had not a single perfect spike to serve him for seed the following year. Among the negroes this circumstance gained the old wench the fame of being a dealer with the devil; and ever afterwards the negroes in all the country round worshipped her through fear, as the Indians do evil spirits. But so much was she shunned, that the grass grew rankly before the door of her hut; and when 'Aunt Molly" died at the age of ninety-six, the whole black population of the country considered themselves as relieved from a heavy burden.

How she effected her purpose she would never disclose; but the owner of the plantation, and

The *ashes* of the *stalk* contains a large proportion of alkali.

2. Of the *husks* a very beautiful paper is made in Italy.

3. The *cob* may be ground, and with or without the grain, used to fatten cattle. An oil is also extracted from the cob.

4. The *grain* is used as food for man and cattle.

It also yields oil :—"The oil of Indian corn is used in Cincinnati as a substitute for sperm or whale oil. It is said to produce an equal quantity of light, to be quite as transparent, and free from disagreeable odour, in addition to which, it is not subject to freezing, having resisted the greatest cold during the present season—say 6° below zero. The yield of oil is said to be half a gallon to the bushel, without destroying the qualities of the grain for distillation."—*Penn. Inq.*

5. It also yields *spirit*. My Kentucky correspondent informs me that he has known four gallons of high proof spirit to be distilled from a single bushel of corn, of the yellow variety, spangled with red; the seed of which came from Hunterdon County, New Jersey.

The late Peter Miner, of Albemarle county, Virginia, made some experiments, of which the following have been communicated: He had ten bushels of meal of the *corn* and *cob* ground together, weighing 367 pounds, and ten bushels of *pure corn meal*, subjected to the process of distillation; and the result was, eighteen gallons of spirit from the latter, and thirteen from the former. Now if the corn corbs had been destitute of all value, the product of the former, estimating the quantity of pure corn meal at five bushels, (which is the general rule, to allow one half in the bulk to the cobs,) ought to have been nine gallons only; but thirteen having been obtained, four of them must have been extracted from the cobs.

On the Culture of Ruta Baga.

As the ruta baga and all other root crops are gaining especially in this country, I will give you the result of my experience. I have raised the ruta baga more or less for seven years past. My usual way has been to sow on new timbered land without ploughing. I have succeeded some years admirably, and some not so well. I have never attempted a crop of turneps that would not have cleared me $25 per acre. Some years the crop has cleared over $100 per acre.

I propose to give you the result of 1¼ acres that I have raised this year. The field was wheat stubble, timbered land, which was not ploughed for the wheat crop; the soil a black sand mixed with loom. The piece was ploughed in the spring, and left until the first week in June; it was then ploughed and harrowed, the roots, &c. cleaned from the ground, and four ounces of seed sown broad cast and well harrowed. After they got into the rough leaf, they were thinned and cleaned from weeds. This is all the cultivation, with the exception of a few hours in August, pulling weeds around stumps, &c.

The result was, I gathered 800 bushels, at 15 cts.	$120 00
Dr. to expence preparing ground, and sowing,	$6 00
Dr. to 4½ days weeding and thinning,	4 50
" 6½ days gathering,	5 00
	$15 50
The nett proceeds of 1¼ acres of land,	$104 50

No farmer would be wise in selling turneps at the price stated above. I count them equal to corn in the ear, that is, a bushel of turneps are equal to a bushel of ears of corn.

Experiment in the Culture of Carrots.

I want to say a few words on raising Carrots, as this year is my first experiment. A friend of mine last winter was advising me to sow some carrots. From his experience he believed he could raise more carrots than turneps from the same land, and he believed they were worth more. Being a friend to the ruta baga, I was slow to believe the carrot could be made as profitable. He succeeded in getting me to promise to sow an acre by his giving me the seed. I sowed about 3-8ths of an acre in the same field where I sowed my turneps the year before. I sowed about the 10th of May. I had so little faith in the crop, I would not sow more than half the seed my friend gave me. I gave what I had left to one of my neighbors. My carrots came up very well, but I was so faithless in the crop that I neglected them until after I had hoed my corn. I examined them, and thought it not worth while to weed them, but I was overpersuaded by my hired man. We spent nearly four days work in hoeing them—the weeds had got such a start that we destroyed the carrots altogether on one third of the piece. This is all the cultivation they had. This fall, to my astonishment, on gathering them, I found I had a little more than 200 bushels. It was not uncommon to

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indeed all well informed white persons, suspected her of having secretly stripped the plants of all the male flowers before the female ones were impregnated.

The point of this story will readily be perceived by the intelligent agriculturist, viz.: that if they wish to cultivate Indian corn for *fodder alone*, or for making sugar, they can deprive it of the power of going to ear, and make it throw all the juices into the stalks and leaves.

find them weighing from 7 to 9 lbs. I was led to weigh some of them by seeing a piece in the Farmer of some one showing you some that were very nice weighing 2½ to 3 lbs.

Cr. by 200 bushels Carrots, at 25 cts.	$50 00
Dr. to preparing ground and sowing,	$2 50
" weeding and thinning,	4 00
" six days gathering at 75 cts.	4 50
	$11 00
Nett proceeds of three-eights of an acre of land,	$39 00

I have made calculations according to the prices that I sold them in the field. I find them to be very valuable for milch cows. I shall make some experiments in feeding turneps and carrots and the result I shall record.

Yours respectfully, A. FORD, JR.

Union District, Michigan, Dec. 11, 1837.

Hints to Correspondents.

Too much of the Editor's space, and too much of the writer's and reader's time is very often consumed in long preambles, and apologetic (half of them affected) introductions. The better way is for the writer to do as we like to see a good horse do, *come down at once to his work*, and say in the plainest language what he has to communicate.

Another hint.—Whatever may be his subject, the writer should always give *date and place*, if not his real name—especially if promulgating theories or giving facts. The bearing and application of what is said depend much on time and locality. For example, at page 218, Vol. I, of Farmers' Cabinet, under the head, "IMPORTANCE OF MANURES," speaking of the use of plaster of Paris, the writer says, "in the River counties it has been formerly used for half a century." Now what river does he mean—Pocomoke or Nanticoke—the Raritan or the Rapidan? J. S. S.

To the Patrons of the Farmers' Cabinet.

Change of the Publication.

At the solicitation of many of our subscribers, we have been induced to make a change in the publication of the Farmers' Cabinet. Hereafter it will be published on or about the 15th of each month. Each number will contain 32 pages, being double the size of those heretofore issued. By this arrangement the subscribers will receive as much reading matter as they do at the present time, and in the same form. It will allow more time for the collection and preparation of materials for each number. There will also be a saving of one half the postage to those who receive the work by mail, as it is chargeable with newspaper postage only—that is one cent on each number within the state of Pennsylvania; and under one hundred miles from the place of publication, out of the state—and one and a half cents per number to any other part of the United States. ☞The next number therefore will be issued about the middle of February.

The Silk Worm.

A small pamphlet has been lately published on the growing of the Silk Worm, by Mr. J. Strong, of Germantown, near Philadelphia. This little work comprises the results of several years practical operations and experiments in the business, and contains, in small compass, many useful directions to those who may engage in the business. The pamphlet may be obtained of H. H. Hirst, 21 Arcade.

To Subscribers.

Subscribers who live remote from the city are requested to pay the amount of their subscription for the ensuing year to any postmaster willing to receive it, as all post-masters are hereby authorized, and respectfully requested to act as agents for the Cabinet. ☞Any gentleman may constitute himself a special agent by forwarding *five dollars*, free of postpage, for which we will supply *seven copies*, as may be ordered, for one year.

The following gentlemen, among others, will receive orders and payment for the Cabinet:

R. LAMBERTON, Esq. Carlisle, Penn.
WM. W. MURRAY, Esq. Middletown, N. J,
GEO. REYNOLDS, Wilmington. Del.
MATTHEW SMITH, Chambersburgh, Penn.
DANIEL FENTON, Trenton, N. J.
SAMUEL PRIOR, Salem, N. J.
GEO. W. COPPUCK, Mount Holly, N. J.
LINTON ROGERS, No. 58 Second st., Pittsburg,
F. WOOLMAN, Burlington, N. J.

☞Sucscribers will please recollect that the next number of the Cabinet will not be issued until the middle of the next month, February.

Cabinet, Vol. 1—Bound.

Those persons who wish to obtain the first volume of the Cabinet, can do so by making early application. The edition is nearly exhausted. Price, neatly and substantially bound, one dollar and twenty-five cents. Subscribers who commenced taking the work at No. 13, Vol. 1, are informed that we can complete that volume by supplying the first twelve numbers, at fifty cents.

ARTICLES.	Philadelphia, Jan. 15.	Baltimore. Jan. 14.	New York, Jan. 13.	Boston, Jan. 13.
Beans, white, per bush.	$1 28–1 62½	1 25—0 00	0 14—0 15	1 12—1 25
Beef, mess, new, per bbl.	14 00–15 00	11 00–13 00	14 00–15 00	14 50–15 00
Bacon, western, per lb.	8— 10	7— 9	8— 10	.....
Butter, extra, per tub	12— 14	16— 20	21— 23	20— 23
Butter, fresh, per lb. (market,)	00— 00	20— 25	20— 25	25— 28
Hams, per lb.	12— 14	13— 13½	10— 12	14— 15
Hog's Lard, per lb.	9½— 10	9— 10	10— 11	9— 10
Cheese, American, per lb.	9 — 10½	9— 11	8— 9½	8— 9
Beeswax, yellow, per lb.	25— 26	23— 25	26— 27	26— 31
Beeswax, white,	.....	38— 40	38— 40	38— 40
Bristles, American,	42— 65	25— 65	25— 65	.....
Flax, American,	7½— 8	9— 10	6— 8	9— 12
Flour, best, per bbl.	8 75—9 25	8 87½—0 00	8 00—9 00	9 50—9 62
GRAIN—Wheat, per bush. Penna.	1 60—1 75	0 00—2 10	1 85—2 00	.....
do. Maryland,	1 60—1 70	1 80—1 82	1 60—1 75	.....
Rye, per bushel,	0 98—1 06	0 90—0 95	—1 18	1 33—1 37
Corn, do.	75— 76	75— 78	1 10—1 12½	0 94—0 98
Oats, do.	40— 43	37— 38	40— 50	52— 55
Barley, do. Penn.	85— 90	.....	0 00—	0 00—0 00
Peas do.	1 00—1 25	75—1 00	— 8	.....
HAY, Timothy, per 100 lbs.	0 80—0 85	12 00 pr. ton.	.....	18 00 pr ton.
Meadow Grass,	70— 80	.....	.....	.....
Hemp, American dry rot, ton,	150 —160	6— 7	130 —140	.....
Hops, first sort, 1836, lb.	9— 10	— 9	6— 6½	6— 7
Plaster Paris, per ton,	3 25—3 37½	0 00—3 50	2 50—	3 00—3 25
SEEDS—Cloverseed, per bushel,	5 00—6 50	5 50—6 00	.....	14— 15
Flaxseed, rough, do.	1 40—1 43	1 37—1 50	8 50—9 50	.....
Timothy,	2 00—0 00	3 25—4 00	12 50–14 00	2 87—3 00
Tallow, per lb.	11— 11½	— 11	— 11	12— 13
WOOL—Saxony, fleece, per lb.	00— 00	40— 50	50— 00	50— 55
Merino,	46— 48	35— 40	37— 00	45— 47
1-4 and common,	33— 36	25— 30	40— 50	33— 38

Prices of Marketing as near the average as can well be ascertained.

Beef, - -	7½ by the quarter.	Potatoes, - -	- 40 a 50 per bu.
Pork, country killed,	- - 6 a 8	Sweet Potatoes, -	75 a 1 00 per bu.
Veal, - -	6 a 8 cents per lb.	Apples, - -	75 do.
Mutton, - -	- - 6 a 8	Dried Apples, -	1 50 a 1 75 do.
Dried Beef -	12½ a 15 per lb.	Dried Peaches, -	- 4 00 do.
Turkeys, - -	$1 12½ a 1 25 apiece.	Cider, - -	a 3 00 per barrel.
Chickens, - -	75 a 1 50 per pair.	Lard, - -	- 14 a 16 per lb.
Geese, - -	1 00 a 1 25 a piece.	Hams, - -	- 16 do.
Ducks, - -	75 a 1 25 a pair.	Shoulders, -	- 12½ do.
Butter, - -	- 25 a 38 per lb.	Oak Wood, -	- 5 00 a 6 00
Eggs, - -	- a 20 per doz.	Hickory Wood, -	- 6 50 a 7 50

THE FARMERS' CABINET,

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